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7590 06/02/2006			EXAMINER	
Louis M. Heidelberger, Esq.,			MA, JOHNNY	
REED SMITH LLP 2500 One Liberty Place			ART UNIT	PAPER NUMBER
1650 Market Street			2623	
Philadelphia, PA 19103-7301			DATE MAILED, 06/03/2006	

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)				
Office Action Commons	09/824,531	HENNENHOEFER ET AL.				
Office Action Summary	Examiner	Art Unit				
	Johnny Ma	2623				
The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply						
A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION. - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication. - If NO period for reply is specified above, the maximum stautory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication. - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).						
Status						
1) Responsive to communication(s) filed on 06 Ma	arch 2006.					
,						
,—	closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.					
Disposition of Claims						
 4) ☐ Claim(s) 1-5 is/are pending in the application. 4a) Of the above claim(s) is/are withdrawn from consideration. 5) ☐ Claim(s) is/are allowed. 6) ☐ Claim(s) 1-5 is/are rejected. 7) ☐ Claim(s) is/are objected to. 8) ☐ Claim(s) are subject to restriction and/or election requirement. 						
Application Papers						
9) The specification is objected to by the Examiner. 10) The drawing(s) filed on is/are: a) accepted or b) objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.						
Priority under 35 U.S.C. § 119						
 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of: 1. Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No. 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. 						
Attachment(s) 1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date	4) Interview Summary Paper No(s)/Mail Da 5) Notice of Informal P 6) Other:					

DETAILED ACTION

Response to Arguments

- 1. Applicant's arguments with respect to claims 1 and 3-4 have been considered but are moot in view of the new ground(s) of rejection.
- 2. Applicant's arguments filed 3/6/2006, regarding claims 2 and 5, have been fully considered but they are not persuasive.

With respect to the Sutton, Jr. reference, Applicant argues "that Sutton is designed to accomplish wiring for data communication without modification of the signals. Sutton places the signals for transmission unmodified directly onto the pre-run cables. See Sutton generally. The only modification of the signals contemplated or enabled in Sutton is compression, such as by MPEG. Sutton, Col. 3. The system of Sutton was designed to free bandwidth, which could arguably allow for modulation onto RF signals but the goals of Sutton are in no way accomplished, nor does Sutton contemplate or enable, modulating or demodulating. The present office action contends that there is a passing reference to modulators and demodulator within Sutton, but Applicant has found no clear teaching of how such modulation and demodulation occurs" (Remarks, pg. 9-10). As a preliminary matter, the Examiner agrees with Applicant that there is no clear teaching of how such modulation and demodulation occurs, at least as disclosed in the Sutton, Jr. reference. However, the examiner respectfully submits that this lack of disclosure was discussed in the previous Office Action and the Klein reference was relied upon for such a teaching. As to Applicant's argument that the Sutton does not contemplate or enable modulating or demodulating, the examiner respectfully disagrees. Rather, the Examiner notes that Sutton clearly contemplates the use of modulation and demodulation wherein the Sutton, Jr.

reference. The examiner respectfully submits that modulation and demodulation is disclosed throughout the Sutton, Jr. reference, disclosing "[t]he junction box 60 contains appropriate modulator means and demodulator means for communicating over the coax wire 56 with complementary demodulator and modulator means in the information outlet 52" (Sutton 3:25-28), "after the IR detector in the information outlet 52 has received the data form the IR remote 76, modulated the data, and sent it to the junction box 60 over the coax 56" (Sutton 4:38-41), "[t]he information outlet 52 contains the electronics needed for several modulators and demodulators" (Sutton 3:13-15), and "standard modulation electronics within the information outlet 52 can be used to combine all of the signals on the existing coax 56, so that no rewiring is required to add the functionality of the invention to an existing location 54" (Sutton 5:24-28).

Applicant further argues that Sutton and Klein cannot be combined (Remarks, pg. 10). In response to applicant's argument that "[i]f, in fact, the modulation was to occur as is taught in Klein, Sutton would be inoperable, as Sutton in fact teaches away from Klein," the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). Further, the examiner respectfully submits that the Klein reference was only relied upon for it's teaching of a demodulator. The examiner also notes that the Klein reference discloses "[i]t will also be appreciated that the specific carrier frequencies and communication frequency bands discussed above are currently preferable because of compatibility with certain standards and cable distribution systems currently

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developed. The invention, however, is not limited to these frequencies and frequency bands" (Klein 8:59-64). Furthermore, the examiner is unable to identify any teaching in Sutton, Jr. that explicitly teaches away from Klein.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., matching the modulating/demodulating to the medium) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5

USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, in the knowledge generally available to one of ordinary skill in the art. The Klein reference was relied upon for it's teaching of a demodulator and as discussed above the Sutton, Jr. clearly teaches the use of demodulation and modulation within the information outlet. Thus it is unclear to the examiner as to why the Klein teaching of a demodulator would result in unnecessary steps to obtain the same result of Sutton alone, since Sutton is silent as to the operation of its demodulator/modulator means.

Claim Rejections - 35 USC § 103

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3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

- (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 4. Claims 1 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sutton, Jr. (US 5,968,118 of record) in further view of Rakib et al. (US 6,889,385 B1).

As to claim 1, note the Sutton, Jr. reference that discloses an information outlet and industrial set top functionality wherein "standard modulation electronics within the information outlet 52 can be used to combine all of the signals on the existing coax 56, so that no rewiring is required to add the functionality of the invention to an existing location 54" (Sutton 5:24-28). The claimed "a wideband distribution system for distributing a plurality of non-IP, RF modulated signals" is met by "... coax wire 56 is used to multiplex all of the signals which are required by the user in the location 54... signals which are sent over the coax cable 56 include video signals from a video monitor or a conventional TV receiver 68" (Sutton 3:43-47).

Further note, as discussed above, the Sutton, Jr. reference discloses "standard modulation electronics within the information outlet 52 can be used to combine all of the signals on the

electronics within the information outlet 52 can be used to combine all of the signals on the existing coax 56, so that no rewiring is required..." (Sutton 5:24-28). However, the Sutton, Jr. reference does not specifically disclose that the standard modulation electronics includes a combiner electrically connected to at least one modulator.

Now note the Rakib et al. reference that discloses a home network wherein multiple streams are multiplexed/combined and then modulated for transmission (Rakib 18:22-38).

Therefore, examiner submits that it would have been obvious to one of ordinary skill in the art at the time invention was made to modify the Sutton, jr. intelligent device with standard modulation electronics for combining all of the signals on the existing coax with the Rakib et al. multiplexing/combining followed by modulation for the purpose of providing a well known means for combining all of the signals on the existing coax.

The claimed "at least one intelligent device for modulating single frequency carrier RF signals using IP digital data and distributing said modulated single frequency RF signals onto said wideband signal distribution system" is met by the Sutton, Jr. and Rakib et al. combination as discussed above wherein "signals which may be sent bidirectionally, between the information outlet 52 and the junction box 60, include telephone signals form a telephone 72 or head end 22, data signals from a computer or terminal device 74 or server 20, and infrared signals from a remote control unit 76" (Sutton 3:50-55). The claimed "said at least one intelligent device including a combiner suitable for distributing said modulated single frequency RF signal into at least an IP signal portion and the non-IP RF modulated signal, and at least one modulator electrically connected to said combiner and suitable for modulating at least the IP signal portion combined by said combiner" is met by the Sutton, Jr. and Rakib et al. combination as discussed above teaching an information outlet with a combiner electrically coupled to a modulator for modulating the signal combined by said combiner.

As to claim 4, note the Sutton, Jr. reference that discloses an information outlet and industrial set top functionality wherein "standard modulation electronics within the information outlet 52 can be used to combine all of the signals on the existing coax 56, so that no rewiring is required to add the functionality of the invention to an existing location 54" (Sutton 5:24-28).

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The claimed "a wideband distribution system for distributing said RF modulated carriers over said network" is met by "...coax wire 56 is used to multiplex all of the signals which are required by the user in the location 54...signals which are sent over the coax cable 56 include video signals from a video monitor or a conventional TV receiver 68" (Sutton 3:43-47). Further note, as discussed above, the Sutton, Jr. reference discloses "standard modulation electronics within the information outlet 52 can be used to combine all of the signals on the existing coax 56, so that no rewiring is required..." (Sutton 5:24-28). However, the Sutton, Jr. reference does not specifically disclose that the standard modulation electronics includes a combiner electrically connected to at least one modulator. Now note the Rakib et al. reference that discloses a home network wherein multiple streams are multiplexed/combined and then modulated for transmission (Rakib 18:22-38). Therefore, examiner submits that it would have been obvious to one of ordinary skill in the art at the time invention was made to modify the Sutton, ir. intelligent device with standard modulation electronics for combining all of the signals on the existing coax with the Rakib et al. multiplexing/combining followed by modulation for the purpose of providing a well known means for combining all of the signals on the existing coax. The claimed "at least one intelligent device communicatively coupled to said distribution system for modulating single frequency carrier RF signals using IP digital data and distributing said modulated single frequency RF signals onto said wideband signal distribution system" is met by the Sutton, Jr. and Rakib et al. combination as discussed above wherein "signals which may be sent bidirectionally, between the information outlet 52 and the junction box 60, include telephone signals form a telephone 72 or head end 22, data signals from a computer or terminal device 74 or server 20, and infrared signals from a remote control unit 76" (Sutton 3:50-55).

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The claimed "said at least one intelligent device including a combiner suitable for distributing said modulated single frequency RF signal into at least an IP signal portion and the non-IP RF modulated signal, and at least one modulator electrically connected to said combiner and suitable for modulating at least the IP signal portion combined by said combiner" is met by the Sutton, Jr. and Rakib et al. combination as discussed above teaching an information outlet with a combiner electrically coupled to a modulator for modulating the signal combined by said combiner.

Note the Sutton, Jr. reference teaches the information outlet is connected to a plurality of devices as illustrated in Figure 2. The claimed "wherein said at least one intelligent device uses an existing media control access layer of the network in order to control the sharing of media channels among multiple addressable devices in the system" is met by the disclosed Sutton, Jr. bi-directional signaling (Sutton, 3:50-55). Although the Sutton, Jr. reference does not specifically disclose the use of a media access control layer the examiner submits that a MAC is inherent to the disclosed system in order to facilitate the flow of data between connected devices.

5. Claims 2 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sutton, Jr. (US 5,968,118) in further view of Klein (US 6,637,030 B1).

As to claim 2, note the Sutton, Jr. reference which discloses an information outlet and industrial set top functionality. The claimed "wideband signal distribution system including 568 standard wiring for distributing a plurality of non-IP, RF modulated signals" is met by "...coax wire 56 is used to multiplex all of the signals which are required by the user in the location 54...signals which are sent over the coax cable 56 include video signals from a video monitor or a conventional TV receiver 68" (Sutton, Jr. 3:43-47), note that coaxial cable is recognized as a cabling choice in the 568 wiring standard. The claimed "at least one intelligent device for

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demodulating single frequency carrier RF signals off of said wideband signal distribution system" is met by "...information outlet 52 contains the electronics needed for several modulators and demodulators" (Sutton, Jr. 3:13-15). The claimed wherein said single frequency RF signals comprises digital information are met by "[o]ther signals, which may be sent bidirectionally, between the information outlet 52 and the junction box 60, include telephone signals from a telephone 72 or telephone head end 22, data signals from a computer or terminal device 74 or server 20, and infrared signals from a remote control unit 76 (Sutton, Jr. 3:50-55) where the disclosed telephone, computer, and server are intelligent peripherals. The claimed "said at least one intelligent device including an RF splitter suitable for receiving said modulated single frequency RF signal into at least an IP signal portion and the non-IP RF modulated signal" is met by "[t]he coax wire 56 is used to multiplex al of the signals which are required by the user in the location 54... The various signals referred to above, are handled by the information outlet [including demodulators] 52 by means of a variety of connectors and ports on the information outlet 56. These include a downstream video connector 78...a telephone jack 72, a data port 84, serial data connectors 86, 88, and infrared signals from a remote control unit 76" (Sutton 3:43-61) wherein the splitting of the signals to their respective ports is inherent to the proper provisioning of signals to the corresponding devices connected to the connectors and ports. However, the Sutton, Jr. reference is silent as to the operation of the modulators and demodulators within the disclosed information outlet. Now note the Klein reference which discloses a broadband cable television and computer network. The claimed "and at least one demodulator electrically connected to said RF splitter and suitable for demodulating at least the IP signal portion split by the RF splitter" is met by "... is routed to a first tunable

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receiver/demodulator 70 having a frequency range of approximately 50 to 750 MHz. This receiver additionally may comprise one or more demodulators for retrieving NTSC or Pal encoded video from the cable television service, FM audio signals, and also for recovering digital data from, for example, cable service provided Internet access" (Klein 8:1-9). Therefore, the examiner submits that it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Sutton, Jr. information outlet with demodulators and modulators with the Klein coupling and splitting of different signals to their respective demodulators for the purpose of providing the correct signal to each output of the wall mounted information outlet where various media and data signals can be sent over a single coaxial line in addition to providing properly formatted signals to a corresponding device.

As to claim 5, note the Sutton, Jr. reference which discloses an information outlet and industrial set top functionality. The claimed "wideband signal distribution system for distributing a plurality of non-IP, RF modulated signals" is met by "...coax wire 56 is used to multiplex all of the signals which are required by the user in the location 54...signals which are sent over the coax cable 56 include video signals from a video monitor or a conventional TV receiver 68" (Sutton, Jr. 3:43-47), note that coaxial cable is recognized as a cabling choice in the 568 wiring standard. The claimed "at least one intelligent device for demodulating single frequency carrier RF signals off of said wideband signal distribution system" is met by "...information outlet 52 contains the electronics needed for several modulators and demodulators" (Sutton, Jr. 3:13-15). The claimed wherein said single frequency RF signals comprises digital information are met by "[o]ther signals, which may be sent bidirectionally, between the information outlet 52 and the junction box 60, include telephone signals from a

telephone 72 or telephone head end 22, data signals from a computer or terminal device 74 or server 20, and infrared signals from a remote control unit 76 (Sutton, Jr. 3:50-55) where the disclosed telephone, computer, and server are intelligent peripherals. The claimed "wherein said at least one intelligent device uses an existing media control access layer of the network in order to control the sharing of media channels among multiple addressable devices in the system" is met by the disclosed Sutton, Jr. bi-directional signaling (Sutton, Jr. 3:50-55). Although the Sutton, Jr. reference does not specifically disclose the use of a media control access layer the examiner submits that a MAC is inherent to the disclosed system in order to facilitate the flow of data between connected devices. The claimed "said at least one intelligent device including an RF splitter suitable for receiving said modulated single frequency RF signal into at least an IP signal portion and the non-IP RF modulated signal" is met by "[t]he coax wire 56 is used to multiplex al of the signals which are required by the user in the location 54...The various signals referred to above, are handled by the information outlet 52 by means of a variety of connectors and ports on the information outlet 56. These include a downstream video connector 78...a telephone jack 72, a data port 84, serial data connectors 86, 88, and infrared signals from a remote control unit 76" (Sutton 3:43-61) wherein the splitting of the signals to their respective ports is inherent to the proper provisioning of signals to the corresponding devices connected to the connectors and ports. However, the Sutton, Jr. reference is silent as to the operation of the modulators and demodulators within the disclosed information outlet. Now note the Klein reference which discloses a broadband cable television and computer network. The claimed "and at least one demodulator electrically connected to said RF splitter and suitable for demodulating at least the IP signal portion split by the RF splitter" is met by "...is routed to a

first tunable receiver/demodulator 70 having a frequency range of approximately 50 to 750 MHz. This receiver additionally may comprise one or more demodulators for retrieving NTSC or Pal encoded video from the cable television service, FM audio signals, and also for recovering digital data from, for example, cable service provided Internet access" (Klein 8:1-9). Therefore, the examiner submits that it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Sutton, Jr. information outlet with demodulators and modulators with the Klein coupling and splitting of different signals to their respective demodulators for the purpose of providing the correct signal to each output of the wall mounted information outlet where various media and data signals can be sent over a single coaxial line in addition to providing properly formatted signals to a corresponding device.

6. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sutton, Jr. (US 5,968,118 of record) in further view of Rakib et al. (US 6,889,385 B1) and Grau et al. (US 5,862,451).

As to claim 3, note the Sutton, Jr. reference that discloses an information outlet and industrial set top functionality wherein "standard modulation electronics within the information outlet 52 can be used to combine all of the signals on the existing coax 56, so that no rewiring is required to add the functionality of the invention to an existing location 54" (Sutton 5:24-28). The claimed "at least one addressable device having at least one input and at least one output" and "at least one intelligent device communicatively coupled with said at least one addressable device to communicate therewith a single carrier frequency RF signal carrying at least the IP digital signal portion thereon" are met by "signals which may be sent bidirectionally, between the information outlet 52 and the junction box 60, include telephone signals from a telephone 72

or telephone head end 22, data signals from a computer or terminal device 74 or server 20, and infrared signals from a remote control unit 76" (Sutton 3:50-55). Further note, as discussed above, the Sutton, Jr. reference discloses "standard modulation electronics within the information outlet 52 can be used to combine all of the signals on the existing coax 56, so that no rewiring is required..." (Sutton 5:24-28). However, the Sutton, Jr. reference does not specifically disclose that the standard modulation electronics includes a combiner electrically connected to at least one modulator. Now note the Rakib et al. reference that discloses a home network wherein multiple streams are multiplexed/combined and then modulated for transmission (Rakib 18:22-38). Therefore, examiner submits that it would have been obvious to one of ordinary skill in the art at the time invention was made to modify the Sutton, ir. intelligent device with standard modulation electronics for combining all of the signals on the existing coax with the Rakib et al. multiplexing/combining followed by modulation for the purpose of providing a well known means for combining all of the signals on the existing coax. The claimed "said at least one intelligent device including a combiner suitable for distributing said modulated single frequency RF signal into at least an IP signal portion and the non-IP RF modulated signal, and at least one modulator electrically connected to said combiner and suitable for modulating at least the IP signal portion combined by said combiner" is met by the Sutton, Jr. and Rakib et al. combination as discussed above wherein "signals which may be sent bidirectionally, between the information outlet 52 and the junction box 60, include telephone signals form a telephone 72 or head end 22, data signals from a computer or terminal device 74 or server 20, and infrared signals from a remote control unit 76" (Sutton 3:50-55) and an information outlet with a combiner electrically coupled to a modulator for modulating the signal combined by said combiner.

However, the Sutton, Jr. reference is silent as to quality of service needs.

Now note the Grau et al. reference that discloses channel quality management in a cable telephony system wherein "[d]ata carried across distribution network 106 in FIG. 1 may include both voice and non-voice data, such as integrated services digital network (ISDN), digital video, phone data, interactive video, or interactive multimedia services (Grau 5:54-57).

The claimed "a COS identification processor for determining a quality of service needed for said IP digital signal portion, and selecting a suitable one of said RF carriers based on the determined quality of service" is met by the CCU determines a quality of service from a channel request and selects a channel for assignment (Grau 15:31-16:20). Therefore, the examiner submits that it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Sutton, Jr. system with the Grau et al. traffic manager for quality of service for the purpose of minimizing disruptions in the transmission of data wherein minimum requirements for certain services can be guaranteed.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, THIS ACTION IS MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Johnny Ma whose telephone number is (571) 272-7351. The examiner can normally be reached on 8:00 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Kelley can be reached on (571) 272-7331. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

jm

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